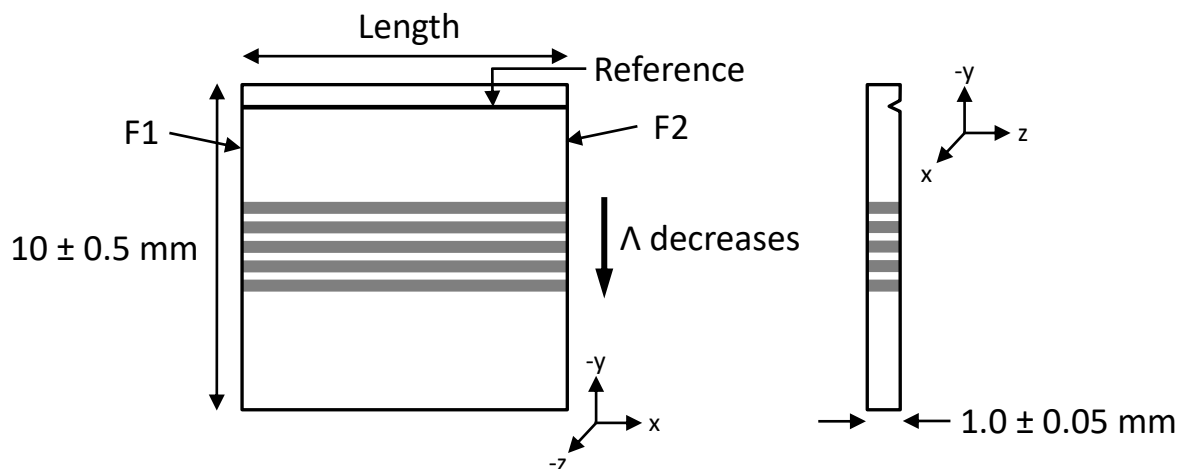


Device Specification

MSHG2600-1.0-xx

Version 2.0/2021



[Image for reference only. Not to scale.]

Description MgO doped PPLN SHG crystal for pump wavelength 2261-3295nm

Thickness(z) 1.0mm± 0.05mm

Width(y) 10mm±0.5mm

Length(x) 1mm±0.1mm, 2mm±0.1mm, 10mm±0.5mm, 20mm±0.5mm, 40mm±0.5mm

Periods(Λ) 34.00, 34.80, 35.50, 35.80, 35.97 μ m

NOTES:

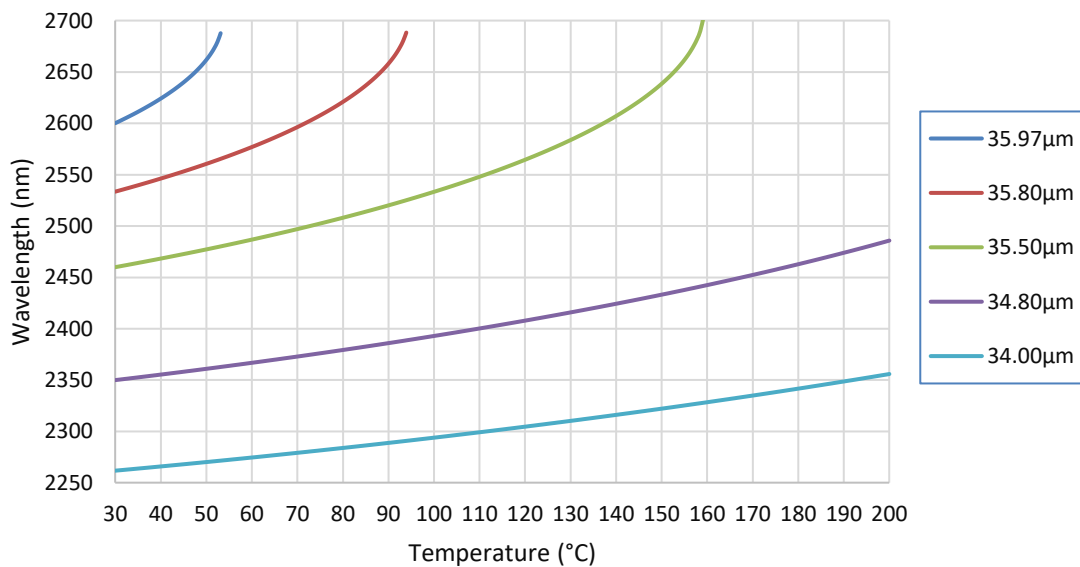
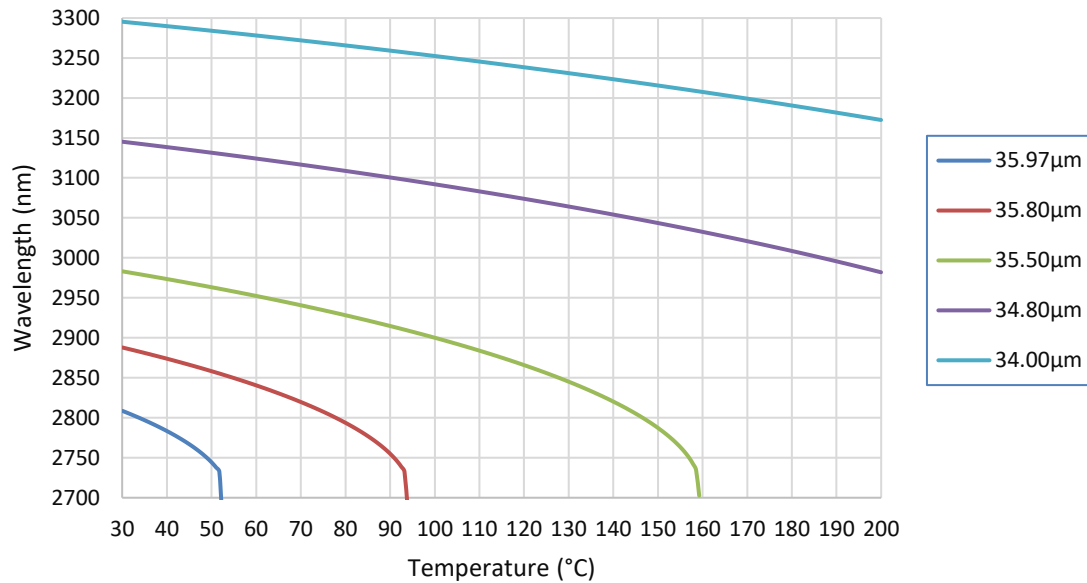
- 1 The SHG device material is Magnesium doped Lithium Niobate with 5 periodically poled gratings. Each grating is 1.0mm wide with individual periods as listed above. A saw-cut reference mark is provided on the +z face of the crystal to determine the largest grating period (see above diagram). Each poled grating is separated by 200 μ m wide regions of unpoled material.
- 2 The average mark-to-space ratio of each grating is better than 70:30.
- 3 Each device is etched to make the poled gratings visible. Due to the wet-etch nature of this process the top and bottom surface finish of each device may appear cloudy or uneven.
- 4 Perpendicularity of input/output facets F1 and F2 to gratings is within $\pm 0.15^\circ$. Parallelism between end facets F1 and F2 is within ± 5 minutes.
- 5 Optical finish of facets F1 and F2 is within 20/10 scratch dig with $\lambda/8@1064\text{nm}$. No more than two 100 μ m size chips.
- 6 AR coated to $R < 3.5\% @ 1130-1650\text{nm}$ (SHG) & to $R < 4.5\% @ 2260-3295\text{nm}$ (Pump), on both input/output facets.

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SHG tuning curve



Please note these are calculated tuning curves only and actual values may vary.

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